

# Signs, Labels, and Tags

Los Alamos National Laboratory

Laboratory Implementation Requirements LIR 402-100-01.2

Original Issue Date: 04/29/97 (Revised: 02/04/04)

Mandatory Document

## 1.0 Introduction

### Lessons Learned

**Note:** [Click here](#) for Lessons Learned that *may apply to* the requirements contained in this LIR.

### 1.1 Background

Signs, labels, and tags (SLTs) are an integral part of operations at Los Alamos National Laboratory (LANL). They help ensure that critical information is effectively communicated in the workplace. Standard SLTs are used to supplement, but not replace, programs, procedures, training, instructions, and guidance developed by the Laboratory and its line managers to inform workers of hazards, status, proper response, etc., regarding Laboratory operations.

On the issue date, this Laboratory implementation requirements (LIR) document must be followed when acquiring and posting SLTs. This LIR supercedes LIR 402-100-01.0.

**Guidance note:** This LIR should be used in conjunction with the Laboratory implementation guidance (LIG) 402-100-01 ([click here to LIG](#)).

### 1.2 In this Document

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## 2.0 Purpose

This document shall be used by Laboratory personnel to decide the ownership, responsibilities, requirements, and steps for acquiring, developing, and adhering to the requirements for posting SLTs at the Laboratory.

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## 3.0 Scope

This document shall apply to the acquisition, display, and adherence to the requirements for all operations assurance SLTs that are used or proposed by Laboratory employees, subcontract personnel, and visitors at the Laboratory.

**Note:** The following categories of SLTs are *not* standardized by this document:

- audio-visual devices used for alarms or warning information;
- motivational information, such as posters;
- procedures, memoranda, or other similar documents that may require posting;
- equipment manufacturer's SLTs;
- administrative (site-specific, location, building, room, or property designation) information to operations assurance;
- mandated posters regarding government programs, such as those explaining affirmative action/equal employment opportunity and workers' compensation; and
- public relations or information signs.

## 4.0 Definitions

### 4.1

#### Acronyms

The following unique acronyms are used in this document:

FM—facility manager

GPO—Government Printing Office

SLT—sign, label, and tag

### 4.2

#### Terms

The following table lists and explains terms used throughout this document.

| The word | can have any or all of the following characteristics and uses:  |
|----------|---|
| sign     | <ul style="list-style-type: none"><li>• word- or picture-based communication</li><li>• made of sturdy materials for posting</li><li>• size, shape, location, and format are appropriate to the purpose within the requirements of this document</li><li>• generally used where legibility at 5 feet or more is needed</li></ul> |

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## 4.2 Terms (cont.)

|  |  |
|--|--|
| label                                    | <ul style="list-style-type: none"><li>• word- or picture-based communication</li><li>• smaller than a sign</li><li>• typically, legible at less than 5 feet</li><li>• flexible format</li><li>• often self-adhesive</li><li>• posted adjacent to or on the specific location or article of interest</li><li>• used to identify an item or its contents or to provide specific guidance in its operation</li></ul>  |
| tag                                      | <ul style="list-style-type: none"><li>• word- or picture-based communication</li><li>• smaller than a sign</li><li>• typically, legible at less than 2 feet</li><li>• able to survive rough handling and harsh environment</li><li>• often used as an appendage on a wire, string, chain, etc.</li><li>• may be used to identify a container's contents when a sign or label is inappropriate</li><li>• is attached to a specific item or location</li></ul> |
| special-category sign, label, or tag     | <ul style="list-style-type: none"><li>• word-based communication</li><li>• used to convey operations-only instructions, status, equipment identification, etc.</li><li>• not used for environment, safety, or health information</li><li>• examples, "turn clockwise to open", "off", "on", "power is on when light is red", "DF-004", "LP-27", "HM-5"</li><li>• does not need to be approved by Sign Standards Committee</li></ul>                          |
| permanent sign, label, or tag            | <ul style="list-style-type: none"><li>• intended to last indefinitely</li><li>• resistant to harsh weather and rough handling</li></ul>  |
| temporary, hand-made sign, label, or tag | <ul style="list-style-type: none"><li>• typically, generated by typewriter, computer, label maker, or hand printed</li><li>• intended to last a short time and often used only until a permanent sign is received (3 months maximum)</li><li>• does not need to be approved by the Sign Standards Committee</li></ul>  |

## 4.3 Additional Term

**operations assurance**—Promotion of safe, secure, reliable facility or programmatic activities; SLTs used to reflect policy, procedures, training, program commitments, instructions, or official Laboratory guidance.

## 5.0 Precautions and Limitations

None

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## 6.0 Implementation Requirements

### 6.1 Sizing

Signs shall be approximately 7 in. x 10 in. for indoor applications and 10 in. x 14 in. for outdoor applications.

**Note:** The size of a sign shall not be the sole cause for developing a Labwide or site-specific (custom) sign, label, or tag if a commercial sign of a different, but acceptable, size is available.

The following criteria shall be used to specify sign size (in descending order of importance):

1. SLTs meet requirements mandated by codes, standards, and regulations;
2. SLTs are commercially available (off-the-shelf) in an appropriate size and shape; and
3. SLTs conform to nominal sizes described above.

The size of the lettering shall be in proportion to the overall size of the sign for readability.

### 6.2 Permanent SLTs

Permanent SLTs must adhere to the following requirements:

- meet the requirements of applicable codes, standards, and regulations;
- be identified in the Laboratory's "Sign Catalog," ([click here](#) for the Sign Catalog) or be approved for site- or operations-specific use by the Sign Standards Committee; and
- use the words "DANGER," "WARNING," and "CAUTION" only in an environmental protection, safety, or health context and only in accordance with applicable regulations.

No internal organization (including on-site subcontractors) may fabricate or use any signs, labels, or tags in Laboratory technical areas without the concurrence of the Sign Standards Committee, except as otherwise provided in this document.

Permanent SLTs must be placed and used as stated in the catalog and as follows: Signs must be posted in a manner that enhances communication to the viewer to the maximum extent possible; that is, with the center of the message at eye level. Signs must not be hidden or obscured by open or closed doors, clothing, equipment, etc.

#### 6.2.1. Procurement requirements.

- Commercially available (off-the-shelf) SLTs shall be used to the greatest extent possible.

**Note:** When the "Sign Catalog" indicates the GPO as the source, contact CIC-9 (Imaging Services Group, 7-4034) to place orders.

- Organizations acquiring and posting SLTs shall bear all costs associated with their purchase and posting, including set-up charges and any minimum order quantity specified by the provider, unless otherwise specified in the Laboratory "Sign Catalog" ([click here](#) for the Sign Catalog).

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## 6.2.2. Replacement requirements.

- SLTs that have deteriorated or become damaged must be replaced before they are unreadable.
  - Misused or misapplied SLTs must be removed or replaced as soon as discovered. EXAMPLE: Using a radioactive waste label on an uncontaminated coffee cup.
  - Words on any permanent or temporary signs must not be altered unless this feature is part of the sign, label, and tag design. Altered or defaced SLTs must be replaced as soon as possible.
  - SLTs that will be changed often shall be affixed so that the surface on which they are placed is not damaged excessively.
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**6.2.3. Approval.** Personnel seeking to use an SLT not in the catalog must obtain the approval of the Sign Standards Committee.

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### 6.3 Sign Proliferation

The numbers and kinds of SLTs shall be minimized to ensure that critical signs receive the appropriate attention and to reduce “sign pollution.”

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### 6.4 Temporary/ Hand-made SLTs

The following restrictions shall apply to temporary/hand-made SLTs:

- Temporary/hand-made SLTs must be used *only* when the use of mechanically fabricated or permanent signs, labels, or tags is impractical because of lack of lead-time or limited use (that is, 3 months maximum).
  - Temporary/hand-made SLTs must be signed and dated by the authority developing and using the instruction or warning. Such SLTs do not require the approval of the Sign Standards Committee.
  - Hand-printed signs, labels, and tags must have legible lettering of a size and in contrasting colors appropriate to the setting.
  - Easily removed SLTs such as self-sticking removable notes (that is, Post-Its®) must not be used to present operations assurance information.
  - Chemical container labels are subject to the restrictions of the chemical labeling requirements of either the Laboratory’s “Chemical Hygiene Plan,” LS106-01.0, or “Hazard Communication,” AR 1-9.
- 

### 6.5 Special- Category Signs, Labels, and Tags

Special-category SLTs must comply and be consistent with standard procedures, training, valve line-up sheets, piping, instrument diagrams, and local practice, etc., within a facility, organization, or a project with respect to language, abbreviations, colors, and design. Directions for using status labels must be included in operating procedures.

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## 6.5 Special- Category Signs, Labels, and Tags (cont.)

**Note:** Where applicable, follow the provisions of the *LANL facility manuals*.

([click here: http://www.lanl.gov/f6stds/pubf6stds/xternhome.html](http://www.lanl.gov/f6stds/pubf6stds/xternhome.html))

for the standards).

**Guidance note:** To the maximum extent practical, special-category SLTs used for identification of systems, equipment, or components should include a written name or description of the article, as well as a unique component number, if operating that component is critical to an activity.

*Acquisition and control.* Acquisition and control of special-category SLTs are the responsibility of the user. Such SLTs do not have to be submitted to the Sign Standards Committee as long as they meet the other requirements of this section. The user, however, must specify and apply internal standards, to ensure consistency within work/activity areas.

*Caution.* Specific requirements of the Sign Catalog shall not be superceded by the use of special-category SLTs.

## 6.6 Self- Assessments

Responsible division directors, group leaders, FMs, project managers, and employees shall periodically evaluate the adequacy of the signage in the areas of their assigned work/activity.

## 6.7 Documentation

The OIC shall maintain and update this document and the “Sign Catalog.”

## 7.0 Required Records

The following table lists the requirements for maintaining records.

| Type of record  | Who maintains it  | For how long?  |
|---|---|--|
| Sign Standards Committee meeting minutes                                | Chairperson   | 10 years   |
| Memos of approval and disapproval for site- or operations-specific SLTs | <ul style="list-style-type: none"><li>• Sign Standards Committee</li><li>• Requesting organization (for contacting)</li></ul> | Until use of the special sign is discontinued or it becomes commercially available |

**Note:** Other records will be maintained as directed by the Sign Standards Committee chairperson.

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## 8.0 References

|                               |  |
|-------------------------------|--|
| <b>8.1 Documents</b>          | <p>American National Standards Institute (ANSI), Accident Prevention Tags (for Temporary Hazards), ANSI Z535.5</p> <p>American National Standards Institute (ANSI), Criteria for Safety Symbols, ANSI Z535.3.</p> <p>American National Standards Institute (ANSI), Environmental and Facility Safety Signs, ANSI Z535.2.</p> <p>American National Standards Institute (ANSI), Product Safety Signs and Labels, ANSI Z535.4.</p> <p>American National Standards Institute (ANSI), Safety Color Code, ANSI Z535.1.</p> <p>“Chemical Hygiene Plan,” Los Alamos National Laboratory document LS106-01.0.</p> <p><i>Facilities Division Standards Manual</i>, Los Alamos National Laboratory internal FWO-Division document.</p> <p>“Hazard Communication,” ,” Los Alamos National Laboratory document AR 1-9.</p> <p>“Sign Catalog,” Los Alamos National Laboratory internal FWO-EO document.</p> <p>“Signs, Labels, and Tags,” Los Alamos National Laboratory guidance document LIG 402-100-01.</p> |
| <b>8.2 Document Ownership</b> | <p>FWO-Program Office for Engineering Oversight, 667-3667, is the OIC for this document.</p>   |
| <b>8.3 Referrals</b>          | <p>For help, refer questions to any member of the Sign Standards Committee. These people are listed in the accompanying LIG.</p>   |

## 9.0 Attachments

- Attachment A: Sign Standards Committee
- Attachment B: 24-Hour Emergency Contacts Sign ([Click here](#) for a fillable form.)
- Attachment C: Storage Cabinet /Container Sign ([Click here](#) for a fillable form.)
- Attachment D: “Sign Catalog” ([Click here](#) for the catalog.)

# Signs, Labels, and Tags: Attachment A

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## ATTACHMENT A: Sign Standards Committee

The Sign Standards Committee consists of one authorized representative (a division employee appointed by the division director and constituting an authority on Laboratory-wide issues of concern to that division) from each of the following organizations:

- Business Operations (BUS)
- Environmental, Safety, and Health (ESH)
- Facilities & Waste Operations (FWO)

A chairperson shall be appointed by the OIC.

A quorum consists of three members. The views of the division having jurisdiction associated with an issue must be represented.

**Note:** Interested employees throughout the Laboratory are encouraged to participate in the work of the committee.

Division representatives shall

- ensure that approvals for SLTs accurately reflect Laboratory and regulatory requirements; and
- be authorized to speak for their respective division.

### Notes:

- Additional information is available in LIG 402-100-01.
- [Click here](#) for a listing of the committee members.





# Signs, Labels, and Tags: Attachment B

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|   |   |
|---|---|
| <b>Scope/<br/>Where to<br/>Post (cont.)</b> | <b>Guidance note:</b> Suggested, but not required, posting places are entrances to rooms used for storage, equipment, machinery, etc.; and each entrance to building wings, bull-pen offices, or other large rooms.   |
| <b>Responsi-<br/>bility</b>                 | The facility manager or designee or designated building manager must ensure that these signs are complete, correct, posted, and reviewed annually.  |
| <b>Specifica-<br/>tion</b>                  | <b>Size:</b> 5 in. by 7 in. shall be the minimum size required.<br><b>Color:</b> Black lettering on white background with an <i>optional</i> blue border.   |
| <b>Implemen-<br/>tation</b>                 | <p>The following information must be entered on the sign:</p> <ul style="list-style-type: none"><li>• Posting date: Specify the date when the most current information was posted</li><li>• Facility management unit (FMU) number for the location</li><li>• Contacts: List 3 contacts in order of descending priority with their work phone number, pager, and cell phone (if any).</li></ul> <p><b>Note:</b> Other systems for 24-h contact, such as a continuously monitored duty phone, are acceptable for one of the contacts.</p> <hr/> <p><b>Guidance note:</b> It is recommended that paper signs be enclosed in self-adhesive clear plastic sleeves, available from Boise Cascade (part number: L270058) for size 5 in. by 8 in.).</p> <hr/> |

# Signs, Labels, and Tags: Attachment C

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## ATTACHMENT C: Storage Cabinet/Container

| Storage Cabinet/Container |                         |                  |      |
|---------------------------|-------------------------|------------------|------|
| Group                     | Caretaker               | Phone            | Date |
| Building                  | Room                    | Key Custodian(s) |      |
| Number of Items           | Description of Contents |                  |      |
| _____                     | _____                   |                  |      |
| _____                     | _____                   |                  |      |
| _____                     | _____                   |                  |      |
| _____                     | _____                   |                  |      |
| _____                     | _____                   |                  |      |
| _____                     | _____                   |                  |      |

The number of items is not required, but may be useful for inventory

**Los Alamos**  
NATIONAL LABORATORY

Form 2009 (1/2004) (LIR 402-100-01) (FWO-EO, OIC) LAES1011

[Click here](#) for a fillable Form 2009, paper version of LAES1011.

### Scope/Where to Post

Any person (caretaker) responsible for the contents of a storage cabinet/container that is on Laboratory property or property leased for use by the Laboratory must fill in and post a storage cabinet/container sign. The caretaker is responsible for ensuring that the information posted on the sign is accurate.

The paper storage cabinet/container sign must be posted on all interior storage cabinets and containers that (1) do not have glass doors or open fronts, and (2) are located in common-use areas (for example, hallways and storage rooms).

The metal storage cabinet/container sign (no substitutes) must be posted on exterior storage units such as transporters, trailers, and cages. The metal signs ordered and posted since 1990 are still valid.

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|                       |   |
|-----------------------|---|
| <b>Exclusions</b>     | Signs are not required for the following: <ul style="list-style-type: none"><li>• first-aid kits;</li><li>• personal desks;</li><li>• safes;</li><li>• modular furniture or file cabinets unless they are used for storage of articles or materials other than paper, audiovisual tape or film documents;</li><li>• lockers used to store personal effects; and</li><li>• refrigerators, on which one of the following signs must be posted:<br/>“FOOD ONLY—NO CHEMICALS, NO RADIOACTIVE MATERIALS” (LACM 2472) “CHEMICALS ONLY—NO FOOD” (LACM 2473)</li></ul>  |
| <b>Responsibility</b> | The caretaker of the storage cabinet/container must ensure that the information posted on this sign accurately reflects the correct caretaker, organization, and contents.  |
| <b>Availability</b>   | For a metal version of Form 2009 (for exterior use), order Stock No. LAES1012, 8.5 in. by 11 in.  |
| <b>Specifications</b> | <b>Color:</b> Black letters on white background with optional blue border<br><b>Material:</b> Available in both paper and metal   |
| <b>Implementation</b> | The following information must be included on the sign. <ol style="list-style-type: none"><li>1. Group: Identify the organization that uses the storage space. If more than one caretaker uses the storage space, cite the predominant organization or the landlord’s organization.</li><li>2. Caretaker: Cite the name and phone number of the person primarily responsible for the contents of the cabinet/container.</li><li>3. Phone: Enter the phone number of the caretaker.</li><li>4. Date: Specify the date of the most recent annual inventory, if required, or the date when the most current information was posted.</li><li>5. Building: Identify the building by technical area and building number (for example, TA3-261) or by alphanumeric building designator (for example, SM-261).</li><li>6. Room: Give the room number. If a cubicle within a larger room does not have a number, use the number of the larger room. If there are no room subdivisions within the building, put “not applicable.”</li></ol> |

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# Signs, Labels, and Tags: Attachment C

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7. Key Custodian(s): Identify those people other than the caretaker who can provide access to the contents of a locked cabinet. If keys are available at a particular location, cite that location. If the cabinet is not locked, write “N/A” in this space on the sign.

8. Number of Items—Optional; to be entered at caretaker’s discretion. Guidance note: This column is provided as a convenience for those owners who wish to use it.

9. Description of Contents:

- Describe the contents in enough detail to reflect the categories of materials stored within the cabinet.

**Guidance note:** The description may be generic (office paper supplies, clean glassware, chemicals, etc.), but it should not be vague. For example, “office supplies” may not correctly identify “office correction fluid,” which contains a solvent.

- Specify items in temporary storage awaiting salvage.
  - If identification, in even the most generic terms, would be a security breach, the contents *must* be listed as “Identity of Contents Is Classified.”
- 

**Guidance note:** It is recommended that the paper signs be enclosed in self-adhesive clear plastic sleeves, available from Boise Cascade (part number: L270058) for size 5 in. by 8 in.

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## **ATTACHMENT D: “SIGN CATALOG”**

[Click here](#) for the catalog.